

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/448,868DATE: 12/14/1999  
TIME: 16:43:39

INPUT SET: S34210.raw

<p><b>This Raw Listing contains the General Information Section and up to the first 5 pages.</b></p>
--

## SEQUENCE LISTING

## (1) General Information:

## (i) APPLICANT: Ni, Jian

Rosen, Craig A.

Pan, James G.

Gentz, Reiner L.

Dixit, Vishva M.

(ii) TITLE OF INVENTION: Death Domain Containing Receptor 4 (DR4: Death  
Receptor 4), Member of the TNF-Receptor  
Superfamily and Binding to Trail (AP02-L)

(iii) NUMBER OF SEQUENCES: 12

## (iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: HUMAN GENOME SCIENCES, INC.

(B) STREET: 9410 KEY WEST AVENUE

(C) CITY: ROCKVILLE

(D) STATE: MD

(E) COUNTRY: US

(F) ZIP: 20850

## (v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: Floppy disk

(B) COMPUTER: IBM PC compatible

(C) OPERATING SYSTEM: PC-DOS/MS-DOS

(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

## (vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: TO BE ASSIGNED

(B) FILING DATE: HERewith

(C) CLASSIFICATION:

## (vi) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: 09/013,895

(B) FILING DATE: 27-JAN-1998

(C) CLASSIFICATION:

## (viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: STEFFE, ERIC K.

(B) REGISTRATION NUMBER: 36,688

(C) REFERENCE/DOCKET NUMBER: 1488.1300004

## (ix) TELECOMMUNICATION INFORMATION:

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/448,868DATE: 12/14/1999  
TIME: 16:43:39

INPUT SET: S34210.raw

47 (A) TELEPHONE: (202) 371-2600  
48 (B) TELEFAX: (202) 371-2540  
49  
50

51 (2) INFORMATION FOR SEQ ID NO:1:  
52

53 (i) SEQUENCE CHARACTERISTICS:  
54 (A) LENGTH: 2152 base pairs  
55 (B) TYPE: nucleic acid  
56 (C) STRANDEDNESS: single  
57 (D) TOPOLOGY: linear  
58

59 (ii) MOLECULE TYPE: DNA (genomic)  
60

61 (ix) FEATURE:  
62 (A) NAME/KEY: CDS  
63 (B) LOCATION: 19..1422  
64  
65

66 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:  
67

70	TTCGGGCACG AGGGCAGG ATG GCG CCA CCA CCA GCT AGA GTA CAT CTA GGT	51
71	Met Ala Pro Pro Pro Ala Arg Val His Leu Gly	
72	1 5 10	
73		
74	GCG TTC CTG GCA GTG ACT CCG AAT CCC GGG AGC GCA GCG AGT GGG ACA	99
75	Ala Phe Leu Ala Val Thr Pro Asn Pro Gly Ser Ala Ala Ser Gly Thr	
76	15 20 25	
77		
78	GAG GCA GCC GCG GCC ACA CCC AGC AAA GTG TGG GGC TCT TCC GCG GGG	147
79	Glu Ala Ala Ala Ala Thr Pro Ser Lys Val Trp Gly Ser Ser Ala Gly	
80	30 35 40	
81		
82	AGG ATT GAA CCA CGA GGC GGG GGC CGA GGA GCG CTC CCT ACC TCC ATG	195
83	Arg Ile Glu Pro Arg Gly Gly Gly Arg Gly Ala Leu Pro Thr Ser Met	
84	45 50 55	
85		
86	GGA CAG CAC GGA CCC AGT GCC CGG GCC CGG GCA GGG CGC GCC CCA GGA	243
87	Gly Gln His Gly Pro Ser Ala Arg Ala Arg Ala Gly Arg Ala Pro Gly	
88	60 65 70 75	
89		
90	CCC AGG CCG GCG CGG GAA GCC AGC CCT CGG CTC CGG GTC CAC AAG ACC	291
91	Pro Arg Pro Ala Arg Glu Ala Ser Pro Arg Leu Arg Val His Lys Thr	
92	80 85 90	
93		
94	TTC AAG TTT GTC GTC GTC GGG GTC CTG CTG CAG GTC GTA CCT AGC TCA	339
95	Phe Lys Phe Val Val Val Gly Val Leu Leu Gln Val Val Pro Ser Ser	
96	95 100 105	
97		
98	GCT GCA ACC ATC AAA CTT CAT GAT CAA TCA ATT GGC ACA CAG CAA TGG	387
99	Ala Ala Thr Ile Lys Leu His Asp Gln Ser Ile Gly Thr Gln Gln Trp	

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/448,868

DATE: 12/14/1999  
TIME: 16:43:39

INPUT SET: S34210.raw

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101				
102	GAA CAT AGC CCT TTG GGA GAG TTG TGT CCA CCA GGA TCT CAT AGA TCA			435
103	Glu His Ser Pro Leu Gly Glu Leu Cys Pro Pro Gly Ser His Arg Ser			
104	125	130	135	
105				
106	GAA CGT CCT GGA GCC TGT AAC CGG TGC ACA GAG GGT GTG GGT TAC ACC			483
107	Glu Arg Pro Gly Ala Cys Asn Arg Cys Thr Glu Gly Val Gly Tyr Thr			
108	140	145	150	155
109				
110	AAT GCT TCC AAC AAT TTG TTT GCT TGC CTC CCA TGT ACA GCT TGT AAA			531
111	Asn Ala Ser Asn Asn Leu Phe Ala Cys Leu Pro Cys Thr Ala Cys Lys			
112	160	165	170	
113				
114	TCA GAT GAA GAA GAG AGA AGT CCC TGC ACC ACG ACC AGG AAC ACA GCA			579
115	Ser Asp Glu Glu Glu Arg Ser Pro Cys Thr Thr Thr Arg Asn Thr Ala			
116	175	180	185	
117				
118	TGT CAG TGC AAA CCA GGA ACT TTC CGG AAT GAC AAT TCT GCT GAG ATG			627
119	Cys Gln Cys Lys Pro Gly Thr Phe Arg Asn Asp Asn Ser Ala Glu Met			
120	190	195	200	
121				
122	TGC CGG AAG TGC AGC ACA GGG TGC CCC AGA GGG ATG GTC AAG GTC AAG			675
123	Cys Arg Lys Cys Ser Thr Gly Cys Pro Arg Gly Met Val Lys Val Lys			
124	205	210	215	
125				
126	GAT TGT ACG CCC TGG AGT GAC ATC GAG TGT GTC CAC AAA GAA TCA GGC			723
127	Asp Cys Thr Pro Trp Ser Asp Ile Glu Cys Val His Lys Glu Ser Gly			
128	220	225	230	235
129				
130	AAT GGA CAT AAT ATA TGG GTG ATT TTG GTT GTG ACT TTG GTT GTT CCG			771
131	Asn Gly His Asn Ile Trp Val Ile Leu Val Val Thr Leu Val Val Pro			
132	240	245	250	
133				
134	TTG CTG TTG GTG GCT GTG CTG ATT GTC TGT TGT TGC ATC GGC TCA GGT			819
135	Leu Leu Leu Val Ala Val Leu Ile Val Cys Cys Cys Ile Gly Ser Gly			
136	255	260	265	
137				
138	TGT GGA GGG GAC CCC AAG TGC ATG GAC AGG GTG TGT TTC TGG CGC TTG			867
139	Cys Gly Gly Asp Pro Lys Cys Met Asp Arg Val Cys Phe Trp Arg Leu			
140	270	275	280	
141				
142	GGT CTC CTA CGA GGG CCT GGG GCT GAG GAC AAT GCT CAC AAC GAG ATT			915
143	Gly Leu Leu Arg Gly Pro Gly Ala Glu Asp Asn Ala His Asn Glu Ile			
144	285	290	295	
145				
146	CTG AGC AAC GCA GAC TCG CTG TCC ACT TTC GTC TCT GAG CAG CAA ATG			963
147	Leu Ser Asn Ala Asp Ser Leu Ser Thr Phe Val Ser Glu Gln Gln Met			
148	300	305	310	315
149				
150	GAA AGC CAG GAG CCG GCA GAT TTG ACA GGT GTC ACT GTA CAG TCC CCA			1011
151	Glu Ser Gln Glu Pro Ala Asp Leu Thr Gly Val Thr Val Gln Ser Pro			
152	320	325	330	

**INPUT SET: S34210.raw**

153																	
154	GGG	GAG	GCA	CAG	TGT	CTG	CTG	GGA	CCG	GCA	GAA	GCT	GAA	GGG	TCT	CAG	1059
155	Gly	Glu	Ala	Gln	Cys	Leu	Leu	Gly	Pro	Ala	Glu	Ala	Glu	Gly	Ser	Gln	
156				335					340					345			
157																	
158	AGG	AGG	AGG	CTG	CTG	GTT	CCA	GCA	AAT	GGT	GCT	GAC	CCC	ACT	GAG	ACT	1107
159	Arg	Arg	Arg	Leu	Leu	Val	Pro	Ala	Asn	Gly	Ala	Asp	Pro	Thr	Glu	Thr	
160			350					355					360				
161																	
162	CTG	ATG	CTG	TTC	TTT	GAC	AAG	TTT	GCA	AAC	ATC	GTG	CCC	TTT	GAC	TCC	1155
163	Leu	Met	Leu	Phe	Phe	Asp	Lys	Phe	Ala	Asn	Ile	Val	Pro	Phe	Asp	Ser	
164		365					370					375					
165																	
166	TGG	GAC	CAG	CTC	ATG	AGG	CAG	CTG	GAC	CTC	ACG	AAA	AAT	GAG	ATC	GAT	1203
167	Trp	Asp	Gln	Leu	Met	Arg	Gln	Leu	Asp	Leu	Thr	Lys	Asn	Glu	Ile	Asp	
168	380					385					390					395	
169																	
170	GTG	GTC	AGA	GCT	GGT	ACA	GCA	GGC	CCA	GGG	GAT	GCC	TTG	TAT	GCA	ATG	1251
171	Val	Val	Arg	Ala	Gly	Thr	Ala	Gly	Pro	Gly	Asp	Ala	Leu	Tyr	Ala	Met	
172					400					405					410		
173																	
174	CTG	ATG	AAA	TGG	GTC	AAC	AAA	ACT	GGA	CGG	AAC	GCC	TCG	ATC	CAC	ACC	1299
175	Leu	Met	Lys	Trp	Val	Asn	Lys	Thr	Gly	Arg	Asn	Ala	Ser	Ile	His	Thr	
176				415					420					425			
177																	
178	CTG	CTG	GAT	GCC	TTG	GAG	AGG	ATG	GAA	GAG	AGA	CAT	GCA	AAA	GAG	AAG	1347
179	Leu	Leu	Asp	Ala	Leu	Glu	Arg	Met	Glu	Glu	Arg	His	Ala	Lys	Glu	Lys	
180			430					435					440				
181																	
182	ATT	CAG	GAC	CTC	TTG	GTG	GAC	TCT	GGA	AAG	TTC	ATC	TAC	TTA	GAA	GAT	1395
183	Ile	Gln	Asp	Leu	Leu	Val	Asp	Ser	Gly	Lys	Phe	Ile	Tyr	Leu	Glu	Asp	
184		445					450					455					
185																	
186	GGC	ACA	GGC	TCT	GCC	GTG	TCC	TTG	GAG	TGAAAGACTC	TTTTTACCAG						1442
187	Gly	Thr	Gly	Ser	Ala	Val	Ser	Leu	Glu								
188	460					465											
189																	
190	AGGTTTCCTC	TTAGGTGTTA	GGAGTTAATA	CATATTAGGT	TTTTTTTTTTT	TTTAACATGT											1502
191																	
192	ATACAAAGTA	AATTCTTAGC	CACGTGTATT	GGCTCCTGCC	TGTAATCCCA	TCACCTTGGG											

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/448,868

DATE: 12/14/1999  
TIME: 16:43:40

INPUT SET: S34210.raw

206 TCATGGTGGT CAATTGGAGG TGTTAATTTG AATGGATTAA GGAACACCTA GAACACTGGT 1982  
207  
208 AAGGCATTAT TTCTGGGACA TTATTTCTGG GCATGTCTTC GAGGGTGTTT CCAGAGGGGA 2042  
209  
210 TTGGCATGCG ATCGGGTGGA CTGAGTGGA AAGACCTACC CTTAATTTGG GGGGGCACCG 2102  
211  
212 TCCGACAGAC TGGGGAGCAA GATAGAAGAA AACAAAAAAA AAAAAAAAAA 2152  
213  
214

(2) INFORMATION FOR SEQ ID NO:2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 468 amino acids
- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

225  
226 Met Ala Pro Pro Pro Ala Arg Val His Leu Gly Ala Phe Leu Ala Val  
227 1 5 10 15  
228  
229 Thr Pro Asn Pro Gly Ser Ala Ala Ser Gly Thr Glu Ala Ala Ala Ala  
230 20 25 30  
231  
232 Thr Pro Ser Lys Val Trp Gly Ser Ser Ala Gly Arg Ile Glu Pro Arg  
233 35 40 45  
234  
235 Gly Gly Gly Arg Gly Ala Leu Pro Thr Ser Met Gly Gln His Gly Pro  
236 50 55 60  
237  
238 Ser Ala Arg Ala Arg Ala Gly Arg Ala Pro Gly Pro Arg Pro Ala Arg  
239 65 70 75 80  
240  
241 Glu Ala Ser Pro Arg Leu Arg Val His Lys Thr Phe Lys Phe Val Val  
242 85 90 95  
243  
244 Val Gly Val Leu Leu Gln Val Val Pro Ser Ser Ala Ala Thr Ile Lys  
245 100 105 110  
246  
247 Leu His Asp Gln Ser Ile Gly Thr Gln Gln Trp Glu His Ser Pro Leu  
248 115 120 125  
249  
250 Gly Glu Leu Cys Pro Pro Gly Ser His Arg Ser Glu Arg Pro Gly Ala  
251 130 135 140  
252  
253 Cys Asn Arg Cys Thr Glu Gly Val Gly Tyr Thr Asn Ala Ser Asn Asn  
254 145 150 155 160  
255  
256 Leu Phe Ala Cys Leu Pro Cys Thr Ala Cys Lys Ser Asp Glu Glu Glu  
257 165 170 175  
258

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/448,868DATE: 12/14/1999  
TIME: 16:43:41

INPUT SET: S34210.raw

## \*\*\*\*\* PREVIOUSLY ERRORED SEQUENCES - EDITED \*\*\*\*\*

51 (2) INFORMATION FOR SEQ ID NO:1:

52

53 (i) SEQUENCE CHARACTERISTICS:

54 (A) LENGTH: 2152 base pairs

55 (B) TYPE: nucleic acid

56 (C) STRANDEDNESS: single

57 (D) TOPOLOGY: linear

58

59 (ii) MOLECULE TYPE: DNA (genomic)

60

61

62 (ix) FEATURE:

63 (A) NAME/KEY: CDS

64 (B) LOCATION: 19..1422

65

66

67

68 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

69

70 TTCGGGCACG AGGGCAGG ATG GCG CCA CCA CCA GCT AGA GTA CAT CTA GGT 51

71 Met Ala Pro Pro Pro Ala Arg Val His Leu Gly

72 1 5 10

73

74 GCG TTC CTG GCA GTG ACT CCG AAT CCC GGG AGC GCA GCG AGT GGG ACA 99

75 Ala Phe Leu Ala Val Thr Pro Asn Pro Gly Ser Ala Ala Ser Gly Thr

76 15 20 25

77

78 GAG GCA GCC GCG GCC ACA CCC AGC AAA GTG TGG GGC TCT TCC GCG GGG 147

79 Glu Ala Ala Ala Ala Thr Pro Ser Lys Val Trp Gly Ser Ser Ala Gly

80 30 35 40

81

82 AGG ATT GAA CCA CGA GGC GGG GGC CGA GGA GCG CTC CCT ACC TCC ATG 195

83 Arg Ile Glu Pro Arg Gly Gly Gly Arg Gly Ala Leu Pro Thr Ser Met

84 45 50 55

85

86 GGA CAG CAC GGA CCC AGT GCC CGG GCC CGG GCA GGG CGC GCC CCA GGA 243

87 Gly Gln His Gly Pro Ser Ala Arg Ala Arg Ala Gly Arg Ala Pro Gly

88 60 65 70 75

89

90 CCC AGG CCG GCG CGG GAA GCC AGC CCT CGG CTC CGG GTC CAC AAG ACC 291

91 Pro Arg Pro Ala Arg Glu Ala Ser Pro Arg Leu Arg Val His Lys Thr

92 80 85 90

93

94 TTC AAG TTT GTC GTC GTC GGG GTC CTG CTG CAG GTC GTA CCT AGC TCA 339

95 Phe Lys Phe Val Val Val Gly Val Leu Leu Gln Val Val Pro Ser Ser

96 95 100 105

97

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/448,868

DATE: 12/14/1999  
TIME: 16:43:41

INPUT SET: S34210.raw

98	GCT GCA ACC ATC AAA CTT CAT GAT CAA TCA ATT GGC ACA CAG CAA TGG	387
99	Ala Ala Thr Ile Lys Leu His Asp Gln Ser Ile Gly Thr Gln Gln Trp	
100	110 115 120	
101		
102	GAA CAT AGC CCT TTG GGA GAG TTG TGT CCA CCA GGA TCT CAT AGA TCA	435
103	Glu His Ser Pro Leu Gly Glu Leu Cys Pro Pro Gly Ser His Arg Ser	
104	125 130 135	
105		
106	GAA CGT CCT GGA GCC TGT AAC CGG TGC ACA GAG GGT GTG GGT TAC ACC	483
107	Glu Arg Pro Gly Ala Cys Asn Arg Cys Thr Glu Gly Val Gly Tyr Thr	
108	140 145 150 155	
109		
110	AAT GCT TCC AAC AAT TTG TTT GCT TGC CTC CCA TGT ACA GCT TGT AAA	531
111	Asn Ala Ser Asn Asn Leu Phe Ala Cys Leu Pro Cys Thr Ala Cys Lys	
112	160 165 170	
113		
114	TCA GAT GAA GAA GAG AGA AGT CCC TGC ACC ACG ACC AGG AAC ACA GCA	579
115	Ser Asp Glu Glu Glu Arg Ser Pro Cys Thr Thr Thr Arg Asn Thr Ala	
116	175 180 185	
117		
118	TGT CAG TGC AAA CCA GGA ACT TTC CGG AAT GAC AAT TCT GCT GAG ATG	627
119	Cys Gln Cys Lys Pro Gly Thr Phe Arg Asn Asp Asn Ser Ala Glu Met	
120	190 195 200	
121		
122	TGC CGG AAG TGC AGC ACA GGG TGC CCC AGA GGG ATG GTC AAG GTC AAG	675
123	Cys Arg Lys Cys Ser Thr Gly Cys Pro Arg Gly Met Val Lys Val Lys	
124	205 210 215	
125		
126	GAT TGT ACG CCC TGG AGT GAC ATC GAG TGT GTC CAC AAA GAA TCA GGC	723
127	Asp Cys Thr Pro Trp Ser Asp Ile Glu Cys Val His Lys Glu Ser Gly	
128	220 225 230 235	
129		
130	AAT GGA CAT AAT ATA TGG GTG ATT TTG GTT GTG ACT TTG GTT GTT CCG	771
131	Asn Gly His Asn Ile Trp Val Ile Leu Val Val Thr Leu Val Val Pro	
132	240 245 250	
133		
134	TTG CTG TTG GTG GCT GTG CTG ATT GTC TGT TGT TGC ATC GGC TCA GGT	819
135	Leu Leu Leu Val Ala Val Leu Ile Val Cys Cys Cys Ile Gly Ser Gly	
136	255 260 265	
137		
138	TGT GGA GGG GAC CCC AAG TGC ATG GAC AGG GTG TGT TTC TGG CGC TTG	867
139	Cys Gly Gly Asp Pro Lys Cys Met Asp Arg Val Cys Phe Trp Arg Leu	
140	270 275 280	
141		
142	GGT CTC CTA CGA GGG CCT GGG GCT GAG GAC AAT GCT CAC AAC GAG ATT	915
143	Gly Leu Leu Arg Gly Pro Gly Ala Glu Asp Asn Ala His Asn Glu Ile	
144	285 290 295	
145		
146	CTG AGC AAC GCA GAC TCG CTG TCC ACT TTC GTC TCT GAG CAG CAA ATG	963
147	Leu Ser Asn Ala Asp Ser Leu Ser Thr Phe Val Ser Glu Gln Gln Met	
148	300 305 310 315	
149		
150	GAA AGC CAG GAG CCG GCA GAT TTG ACA GGT GTC ACT GTA CAG TCC CCA	1011

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/448,868

DATE: 12/14/1999  
TIME: 16:43:41

INPUT SET: S34210.raw

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153		
154	GGG GAG GCA CAG TGT CTG CTG GGA CCG GCA GAA GCT GAA GGG TCT CAG	1059
155	Gly Glu Ala Gln Cys Leu Leu Gly Pro Ala Glu Ala Glu Gly Ser Gln	
156	335 340 345	
157		
158	AGG AGG AGG CTG CTG GTT CCA GCA AAT GGT GCT GAC CCC ACT GAG ACT	1107
159	Arg Arg Arg Leu Leu Val Pro Ala Asn Gly Ala Asp Pro Thr Glu Thr	
160	350 355 360	
161		
162	CTG ATG CTG TTC TTT GAC AAG TTT GCA AAC ATC GTG CCC TTT GAC TCC	1155
163	Leu Met Leu Phe Phe Asp Lys Phe Ala Asn Ile Val Pro Phe Asp Ser	
164	365 370 375	
165		
166	TGG GAC CAG CTC ATG AGG CAG CTG GAC CTC ACG AAA AAT GAG ATC GAT	1203
167	Trp Asp Gln Leu Met Arg Gln Leu Asp Leu Thr Lys Asn Glu Ile Asp	
168	380 385 390 395	
169		
170	GTG GTC AGA GCT GGT ACA GCA GGC CCA GGG GAT GCC TTG TAT GCA ATG	1251
171	Val Val Arg Ala Gly Thr Ala Gly Pro Gly Asp Ala Leu Tyr Ala Met	
172	400 405 410	
173		
174	CTG ATG AAA TGG GTC AAC AAA ACT GGA CGG AAC GCC TCG ATC CAC ACC	1299
175	Leu Met Lys Trp Val Asn Lys Thr Gly Arg Asn Ala Ser Ile His Thr	
176	415 420 425	
177		
178	CTG CTG GAT GCC TTG GAG AGG ATG GAA GAG AGA CAT GCA AAA GAG AAG	1347
179	Leu Leu Asp Ala Leu Glu Arg Met Glu Glu Arg His Ala Lys Glu Lys	
180	430 435 440	
181		
182	ATT CAG GAC CTC TTG GTG GAC TCT GGA AAG TTC ATC TAC TTA GAA GAT	1395
183	Ile Gln Asp Leu Leu Val Asp Ser Gly Lys Phe Ile Tyr Leu Glu Asp	
184	445 450 455	
185		
186	GGC ACA GGC TCT GCC GTG TCC TTG GAG TGAAAGACTC TTTTACCAG	1442
187	Gly Thr Gly Ser Ala Val Ser Leu Glu	
188	460 465	
189		
190	AGGTTTCCTC TTAGGTGTTA GGAGTTAATA CATATTAGGT TTTTTTTTTT TTTAACATGT	1502
191		
192	ATACAAAGTA AATTCTTAGC CACGTGTATT GGCTCCTGCC TGTAATCCCA TCACTTTGGG	1562
193		
194	AGGCTGACGC CGGTGGATCC ACTTGAGGTC CGAAGTTCCA AGACCAGCCC TGAACCAACA	1622
195		
196	TCGTGGAAAT GCCCGTCTTT TACAAAAAAA TACCAAAAAT TCAACTGGAA TGTGCATGGT	1682
197		
198	GTGTGCCATC ATTTCTCGG CTAACCTACGG GAGGTCTGAG GCCAGGAGAA TCCACTTGAA	1742
199		
200	CCCCACGAAG GACAGTGTAG ACTGCAGATT GCACCACTGC ACTCCCAGCC TGGGAACACA	1802
201		
202	GAGCAAGACT CTGTCTCAAG ATAAAATAAA ATAAACTTGA AAGAATTATT GCCCGACTGA	1862
203		



**RAW SEQUENCE LISTING**  
**PATENT APPLICATION US/09/448,868**DATE: 12/14/1999  
TIME: 16:43:42*INPUT SET: S34210.raw*

204	GGCTCACATG CCAAAGGAAA ATCTGGTTCT CCCCTGAGCT GGCCTCCGTG TGTTTCCTTA	1922
205		
206	TCATGGTGGT CAATTGGAGG TGTTAATTG AATGGATTAA GGAACACCTA GAACACTGGT	1982
207		
208	AAGGCATTAT TTCTGGGACA TTATTTCTGG GCATGTCTTC GAGGGTGTTT CCAGAGGGGA	2042
209		
210	TTGGCATGCG ATCGGGTGGA CTGAGTGGA AAGACCTACC CTTAATTTGG GGGGGCACCG	2102
211		
212	TCCGACAGAC TGGGGAGCAA GATAGAAGAA AACAAAAAAA AAAAAAAA	2152
213		
214		

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PAGE: 1

**SEQUENCE VERIFICATION REPORT**  
**PATENT APPLICATION US/09/448,868**

DATE: 12/14/1999  
TIME: 16:43:42

*INPUT SET: S34210.raw*

Line	Error	Original Text
32	Wrong application Serial Number	(A) APPLICATION NUMBER: TO BE ASSIGNED

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/448,868

DATE: 12/14/1999  
TIME: 04:37:43

INPUT SET: S34210.raw

**This Raw Listing contains the General Information Section and those Sequences containing ERRORS.**

SEQUENCE LISTING

(1) General Information:

**Does Not Comply  
Corrected Diskette Needed**

- (i) APPLICANT: Ni, Jian  
Rosen, Craig A.  
Pan, James G.  
Gentz, Reiner L.  
Dixit, Vishva M.

- (ii) TITLE OF INVENTION: Death Domain Containing Receptor 4 (DR4: Death Receptor 4), Member of the TNF-Receptor Superfamily and Binding to Trail (AP02-L)

- (iii) NUMBER OF SEQUENCES: 12

(iv) CORRESPONDENCE ADDRESS:

- (A) ADDRESSEE: HUMAN GENOME SCIENCES, INC.
- (B) STREET: 9410 KEY WEST AVENUE
- (C) CITY: ROCKVILLE
- (D) STATE: MD
- (E) COUNTRY: US
- (F) ZIP: 20850

(v) COMPUTER READABLE FORM:

- (A) MEDIUM TYPE: Floppy disk
- (B) COMPUTER: IBM PC compatible
- (C) OPERATING SYSTEM: PC-DOS/MS-DOS
- (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) CURRENT APPLICATION DATA:

- (A) APPLICATION NUMBER: TO BE ASSIGNED
- (B) FILING DATE: HERewith
- (C) CLASSIFICATION:

(vi) PRIOR APPLICATION DATA:

- (A) APPLICATION NUMBER: 09/013,895
- (B) FILING DATE: 27-JAN-1998
- (C) CLASSIFICATION:

(viii) ATTORNEY/AGENT INFORMATION:

- (A) NAME: STEFFE, ERIC K.
- (B) REGISTRATION NUMBER: 36,688
- (C) REFERENCE/DOCKET NUMBER: 1488.1300004

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RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/448,868DATE: 12/14/1999  
TIME: 04:37:43

INPUT SET: S34210.raw

46 (ix) TELECOMMUNICATION INFORMATION:  
47 (A) TELEPHONE: (202) 371-2600  
48 (B) TELEFAX: (202) 371-2540  
49  
50

## ERRORED SEQUENCES FOLLOW:

51 (2) INFORMATION FOR SEQ ID NO:1:  
52  
53 (i) SEQUENCE CHARACTERISTICS:  
54 (A) LENGTH: 2152 base pairs  
55 (B) TYPE: nucleic acid  
56 (C) STRANDEDNESS: single  
57 (D) TOPOLOGY: linear  
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59 (ii) MOLECULE TYPE: DNA (genomic)  
60  
61  
62 (ix) FEATURE:  
63 (A) NAME/KEY: CDS  
64 (B) LOCATION: 19..1422  
65  
66  
67  
68 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:  
69

70 TTCGGGCACG AGGGCAGG ATG GCG CCA CCA CCA GCT AGA GTA CAT CTA GGT  
71 51  
72 Met Ala Pro Pro Pro Ala Arg Val His Leu Gly  
73 1 5 10  
74  
75 GCG TTC CTG GCA GTG ACT CCG AAT CCC GGG AGC GCA GCG AGT GGG ACA 99  
76 Ala Phe Leu Ala Val Thr Pro Asn Pro Gly Ser Ala Ala Ser Gly Thr  
77 15 20 25  
78  
79 GAG GCA GCC GCG GCC ACA CCC AGC AAA GTG TGG GGC TCT TCC GCG GGG 147  
80 Glu Ala Ala Ala Ala Thr Pro Ser Lys Val Trp Gly Ser Ser Ala Gly  
81 30 35 40  
82  
83 AGG ATT GAA CCA CGA GGC GGG GGC CGA GGA GCG CTC CCT ACC TCC ATG 195  
84 Arg Ile Glu Pro Arg Gly Gly Gly Arg Gly Ala Leu Pro Thr Ser Met  
85 45 50 55  
86  
87 GGA CAG CAC GGA CCC AGT GCC CGG GCC CGG GCA GGG CGC GCC CCA GGA 243  
88 Gly Gln His Gly Pro Ser Ala Arg Ala Arg Ala Gly Arg Ala Pro Gly  
89 60 65 70 75  
90  
91 CCC AGG CCG GCG CGG GAA GCC AGC CCT CGG CTC CGG GTC CAC AAG ACC 291  
92 Pro Arg Pro Ala Arg Glu Ala Ser Pro Arg Leu Arg Val His Lys Thr

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/448,868

DATE: 12/14/1999  
TIME: 04:37:43

INPUT SET: S34210.raw

	80	85	90	
93				
94				
95	TTC AAG TTT GTC GTC GTC GGG GTC CTG CTG CAG GTC GTA CCT AGC TCA			339
96	Phe Lys Phe Val Val Val Gly Val Leu Leu Gln Val Val Pro Ser Ser			
97	95	100	105	
98				
99	GCT GCA ACC ATC AAA CTT CAT GAT CAA TCA ATT GGC ACA CAG CAA TGG			387
100	Ala Ala Thr Ile Lys Leu His Asp Gln Ser Ile Gly Thr Gln Gln Trp			
101	110	115	120	
102				
103	GAA CAT AGC CCT TTG GGA GAG TTG TGT CCA CCA GGA TCT CAT AGA TCA			435
104	Glu His Ser Pro Leu Gly Glu Leu Cys Pro Pro Gly Ser His Arg Ser			
105	125	130	135	
106				
107	GAA CGT CCT GGA GCC TGT AAC CGG TGC ACA GAG GGT GTG GGT TAC ACC			483
108	Glu Arg Pro Gly Ala Cys Asn Arg Cys Thr Glu Gly Val Gly Tyr Thr			
109	140	145	150	155
110				
111	AAT GCT TCC AAC AAT TTG TTT GCT TGC CTC CCA TGT ACA GCT TGT AAA			531
112	Asn Ala Ser Asn Asn Leu Phe Ala Cys Leu Pro Cys Thr Ala Cys Lys			
113	160	165	170	
114				
115	TCA GAT GAA GAA GAG AGA AGT CCC TGC ACC ACG ACC AGG AAC ACA GCA			579
116	Ser Asp Glu Glu Glu Arg Ser Pro Cys Thr Thr Thr Arg Asn Thr Ala			
117	175	180	185	
118				
119	TGT CAG TGC AAA CCA GGA ACT TTC CGG AAT GAC AAT TCT GCT GAG ATG			627
120	Cys Gln Cys Lys Pro Gly Thr Phe Arg Asn Asp Asn Ser Ala Glu Met			
121	190	195	200	
122				
123	TGC CGG AAG TGC AGC ACA GGG TGC CCC AGA GGG ATG GTC AAG GTC AAG			675
124	Cys Arg Lys Cys Ser Thr Gly Cys Pro Arg Gly Met Val Lys Val Lys			
125	205	210	215	
126				
127	GAT TGT ACG CCC TGG AGT GAC ATC GAG TGT GTC CAC AAA GAA TCA GGC			723
128	Asp Cys Thr Pro Trp Ser Asp Ile Glu Cys Val His Lys Glu Ser Gly			
129	220	225	230	235
130				
131	AAT GGA CAT AAT ATA TGG GTG ATT TTG GTT GTG ACT TTG GTT GTT CCG			771
132	Asn Gly His Asn Ile Trp Val Ile Leu Val Val Thr Leu Val Val Pro			
133	240	245	250	
134				
135	TTG CTG TTG GTG GCT GTG CTG ATT GTC TGT TGT TGC ATC GGC TCA GGT			819
136	Leu Leu Leu Val Ala Val Leu Ile Val Cys Cys Cys Ile Gly Ser Gly			
137	255	260	265	
138				
139	TGT GGA GGG GAC CCC AAG TGC ATG GAC AGG GTG TGT TTC TGG CGC TTG			867
140	Cys Gly Gly Asp Pro Lys Cys Met Asp Arg Val Cys Phe Trp Arg Leu			
141	270	275	280	
142				
143	GGT CTC CTA CGA GGG CCT GGG GCT GAG GAC AAT GCT CAC AAC GAG ATT			915
144	Gly Leu Leu Arg Gly Pro Gly Ala Glu Asp Asn Ala His Asn Glu Ile			
145	285	290	295	

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/448,868

DATE: 12/14/1999  
TIME: 04:37:44

INPUT SET: S34210.raw

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146
147 CTG AGC AAC GCA GAC TCG CTG TCC ACT TTC GTC TCT GAG CAG CAA ATG 963
148 Leu Ser Asn Ala Asp Ser Leu Ser Thr Phe Val Ser Glu Gln Gln Met
149 300 305 310 315
150
151 GAA AGC CAG GAG CCG GCA GAT TTG ACA GGT GTC ACT GTA CAG TCC CCA 1011
152 Glu Ser Gln Glu Pro Ala Asp Leu Thr Gly Val Thr Val Gln Ser Pro
153 320 325 330
154
155 GGG GAG GCA CAG TGT CTG CTG GGA CCG GCA GAA GCT GAA GGG TCT CAG 1059
156 Gly Glu Ala Gln Cys Leu Leu Gly Pro Ala Glu Ala Glu Gly Ser Gln
157 335 340 345
158
159 AGG AGG AGG CTG CTG GTT CCA GCA AAT GGT GCT GAC CCC ACT GAG ACT 1107
160 Arg Arg Arg Leu Leu Val Pro Ala Asn Gly Ala Asp Pro Thr Glu Thr
161 350 355 360
162
163 CTG ATG CTG TTC TTT GAC AAG TTT GCA AAC ATC GTG CCC TTT GAC TCC 1155
164 Leu Met Leu Phe Phe Asp Lys Phe Ala Asn Ile Val Pro Phe Asp Ser
165 365 370 375
166
167 TGG GAC CAG CTC ATG AGG CAG CTG GAC CTC ACG AAA AAT GAG ATC GAT 1203
168 Trp Asp Gln Leu Met Arg Gln Leu Asp Leu Thr Lys Asn Glu Ile Asp
169 380 385 390 395
170
171 GTG GTC AGA GCT GGT ACA GCA GGC CCA GGG GAT GCC TTG TAT GCA ATG 1251
172 Val Val Arg Ala Gly Thr Ala Gly Pro Gly Asp Ala Leu Tyr Ala Met
173 400 405 410
174
175 CTG ATG AAA TGG GTC AAC AAA ACT GGA CGG AAC GCC TCG ATC CAC ACC 1299
176 Leu Met Lys Trp Val Asn Lys Thr Gly Arg Asn Ala Ser Ile His Thr
177 415 420 425
178
179 CTG CTG GAT GCC TTG GAG AGG ATG GAA GAG AGA CAT GCA AAA GAG AAG
180 1347
181 Leu Leu Asp Ala Leu Glu Arg Met Glu Glu Arg His Ala Lys Glu Lys
182 430 435 440
183
--> 184 ATT CAG GAC CTC TTG GTG GAC TCT GGA AAG TTC ATC TAC TTA GAA GAT 1395
185 Ile Gln Asp Leu Leu Val Asp Ser Gly Lys Phe Ile Tyr Leu Glu Asp
186 445 450 455
187
188 GGC ACA GGC TCT GCC GTG TCC TTG GAG TGAAAGACTC TTTTACCAG 1442
189 Gly Thr Gly Ser Ala Val Ser Leu Glu
190 460 465
191
192 AGGTTTCCTC TTAGGTGTTA GGAGTTAATA CATATTAGGT TTTTTTTTTT
--> 193 TTTAACATGT 1502
194
195 ATACAAAGTA AATTCTTAGC CACGTGTATT GGCTCCTGCC TGTAATCCCA
--> 196 TCACTTTGGG 1562
197
198 AGGCTGACGC CGGTGGATCC ACTTGAGGTC CGAAGTTCCA AGACCAGCCC

```

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/448,868DATE: 12/14/1999  
TIME: 04:37:44

INPUT SET: S34210.raw

--> 199 TGAACCAACA 1622  
200  
201 TCGTGGAAT GCCCGTCTTT TACAAAAAA TACCAAAAAT TCAACTGGAA  
--> 202 TGTGCATGGT 1682  
203  
204 GTGTGCCATC ATTTCTCTCGG CTAACCTACGG GAGGTCTGAG GCCAGGAGAA  
--> 205 TCCACTTGAA 1742  
206  
207 CCCCACGAAG GACAGTGTAG ACTGCAGATT GCACCACTGC ACTCCCAGCC  
--> 208 TGGGAACACA 1802  
209  
210 GAGCAAGACT CTGTCTCAAG ATAAAATAAA ATAACTTGA AAGAATTATT  
--> 211 GCCCGACTGA 1862  
212  
213 GGCTCACATG CCAAAGGAAA ATCTGGTTCT CCCCTGAGCT GGCCTCCGTG  
--> 214 TGTTTCCTTA 1922  
215  
216 TCATGGTGGT CAATTGGAGG TGTTAATTTG AATGGATTAA GGAACACCTA  
--> 217 GAACACTGGT 1982  
218  
219 AAGGCATTAT TTCTGGGACA TTATTTCTGG GCATGTCTTC GAGGGTGTTT  
--> 220 CCAGAGGGGA 2042  
221  
222 TTGGCATGCG ATCGGGTGGG CTGAGTGGAA AAGACCTACC CTTAATTTGG  
--> 223 GGGGGCACCG 2102  
224  
225 TCCGACAGAC TGGGGAGCAA GATAGAAGAA AACAAAAAAA AAAAAAAAAA  
226 2152  
227  
228

*same  
env*

---

831 (2) INFORMATION FOR SEQ ID NO:6:  
832  
833 (i) SEQUENCE CHARACTERISTICS:  
--> 834 (A) LENGTH: 426 base pairs  
835 (B) TYPE: nucleic acid  
836 (C) STRANDEDNESS: single  
837 (D) TOPOLOGY: linear  
838  
839 (ii) MOLECULE TYPE: DNA (genomic)  
840  
841  
842  
843  
844 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:  
845  
846 GGCANAGGTN CGTACCTAGC TCACCTGCAA CCATCAAAC TATGATCAA  
--> 847 TCAATTGGCA 60  
848  
849 CACAGCAATG GGAAACATAG CCCTTGGAA GANTTGTNTC CACCAGGATC  
--> 850 TCATAGATCA 120  
851  
852 AAACATCCTG GGAGCCTGTT AACCGGTGCC CCAAAGGNTG GTCAAGGTCA

*same*

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/448,868DATE: 12/14/1999  
TIME: 04:37:44

INPUT SET: S34210.raw

```
--> 853 AGGAATTGTT      180
854
855 NCGCCCTGGA AGTGAACATC GAGTGTNTCC ACAAAGGATT CAGGCAATGG
--> 856 GACATAAATA      240
857
858 TATGGGTGAA TTTTGGTTGT GAACTTTGGT TGNTCCCGTT GNTGTTGNTG
--> 859 GCTGTGCTGA      300
860
861 TTGTTTGTG TTGCATCGGC TTCAGGTTNT GGAGGGGGAC CCAAGTGCAT
--> 862 GGACAGGGTG      360
863
864 TGTTTCTGGG GTTTGGGTCT CTTAGAGGGC NTGGGTTANG GCANGTTCAC
--> 865 AAGGGTTTTA      420
866
867 GCAANG
868
```

426

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```

869 (2) INFORMATION FOR SEQ ID NO:7:
870
871 (i) SEQUENCE CHARACTERISTICS:
--> 872 (A) LENGTH: 339 base pairs
873 (B) TYPE: nucleic acid
874 (C) STRANDEDNESS: single
875 (D) TOPOLOGY: linear
876
877 (ii) MOLECULE TYPE: DNA (genomic)
878
879
880
881
882 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:
883
884 TGGGGCTGAG GACAATGCTG ACNACGAGAT TCTGAGCAAC GCAGNACTNG
--> 885 CTGTCCACTT 60
886
887 TCGTCTNTGN GCAGCAAATG GAAAGCCAGG AGCCGGCAGA TTTGACAGGT
--> 888 GTCACTGTAC 120
889
890 AGTCCCCAGG GGAGGCACAG TGTCTGCTGG TGAGTTGGGG ACAGGCCCTT
--> 891 GCAAGACCTT 180
892
893 GTGAGGCAGG GGGTGAAGGC CATGNCTCGG CTTCNNNTGG TCAAAGGGGA
--> 894 AGTGGAGCCT 240
895
896 GAGGGAGATG GGACTTNAGG GGGACGGNGC TGC GTGGGGA AAAAGCAGCC
--> 897 ACCNTTTGAC 300
898
899 AAGGGGGACA GGCATTTTTN CAAATGTGTG CTTNTTGGT
900

```

*Done*

339

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943 (2) INFORMATION FOR SEQ ID NO:11:
944
945 (i) SEQUENCE CHARACTERISTICS:

```

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/448,868DATE: 12/14/1999  
TIME: 04:37:45

INPUT SET: S34210.raw

--> 946 (A) LENGTH: 29 base pairs  
947 (B) TYPE: nucleic acid  
948 (C) STRANDEDNESS: single  
949 (D) TOPOLOGY: linear  
950  
951 (ii) MOLECULE TYPE: DNA (genomic)  
952  
953 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:  
954  
955  
956 29  
957

GCGGGATCCT CAATTATGTC CATTGCCTG

---

958 (2) INFORMATION FOR SEQ ID NO:12:  
959  
960 (i) SEQUENCE CHARACTERISTICS:  
--> 961 (A) LENGTH: 29 base pairs  
962 (B) TYPE: nucleic acid  
963 (C) STRANDEDNESS: single  
964 (D) TOPOLOGY: linear  
965  
966 (ii) MOLECULE TYPE: DNA (genomic)  
967  
968 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:  
969  
970  
971 29  
972  
973  
974  
975  
976

GCGAAGCTTT CAATTATGTC C

# SEQUENCE VERIFICATION REPORT

## PATENT APPLICATION US/09/448,868

DATE: 12/14/1999  
TIME: 04:37:45

INPUT SET: S34210.raw

Line	Error	Original Text
32	Wrong application Serial Number	(A) APPLICATION NUMBER: TO BE ASSIGNED
54	Entered (2152) and Calc. Seq. Length (1453) differ	(A) LENGTH: 2152 base pairs
75	# of Sequences for line conflicts w/ running total	GCG TTC CTG GCA GTG ACT CCG AAT CCC GGG AG
184	# of Sequences for line conflicts w/ running total	ATT CAG GAC CTC TTG GTG GAC TCT GGA AAG TT
193	# of Sequences for line conflicts w/ running total	TTTAACATGT 1502
196	# of Sequences for line conflicts w/ running total	TCACTTTGGG 1562
199	# of Sequences for line conflicts w/ running total	TGAACCAACA 1622
202	# of Sequences for line conflicts w/ running total	TGTGCATGGT 1682
205	# of Sequences for line conflicts w/ running total	TCCACTTGAA 1742
208	# of Sequences for line conflicts w/ running total	TGGGAACACA 1802
211	# of Sequences for line conflicts w/ running total	GCCCGACTGA 1862
214	# of Sequences for line conflicts w/ running total	TGTTTCCTTA 1922
217	# of Sequences for line conflicts w/ running total	GAACACTGGT 1982
220	# of Sequences for line conflicts w/ running total	CCAGAGGGGA 2042
223	# of Sequences for line conflicts w/ running total	GGGGGCACCG 2102
834	Entered (426) and Calc. Seq. Length (76) differ	(A) LENGTH: 426 base pairs
847	# of Sequences for line conflicts w/ running total	TCAATTGGCA 60
850	# of Sequences for line conflicts w/ running total	TCATAGATCA 120
853	# of Sequences for line conflicts w/ running total	AGGAATTGTT 180
856	# of Sequences for line conflicts w/ running total	GACATAAATA 240
859	# of Sequences for line conflicts w/ running total	GCTGTGCTGA 300
862	# of Sequences for line conflicts w/ running total	GGACAGGGTG 360
865	# of Sequences for line conflicts w/ running total	AAGGGTTTTA 420
872	Entered (339) and Calc. Seq. Length (89) differ	(A) LENGTH: 339 base pairs
885	# of Sequences for line conflicts w/ running total	CTGTCCACTT 60
888	# of Sequences for line conflicts w/ running total	GTCAGTGTAC 120
891	# of Sequences for line conflicts w/ running total	GCAAGACCTT 180
894	# of Sequences for line conflicts w/ running total	AGTGGAGCCT 240
897	# of Sequences for line conflicts w/ running total	ACCNTTTGAC 300
946	Entered (29) and Calc. Seq. Length (0) differ	(A) LENGTH: 29 base pairs
961	Entered (29) and Calc. Seq. Length (0) differ	(A) LENGTH: 29 base pairs